Beach Chair

Field of Invention

The present invention relates to a beach chair.

Background of Invention

Referring to Figure 6, a conventional beach chair 60 includes a first U-shaped frame 62, a second U-shaped frame 64 pivotally connected with the first U-shaped frame 62 and a third U-shaped frame 66 pivotally connected with the first U-shaped frame 62. The first U-shaped frame 62 includes a central member and two lateral members extending from the central member. The central member of the first U-shaped frame 62 is put on the ground. Each lateral member of the first U-shaped frame 62 includes a lower portion and an upper portion. A plurality of parallel straps is connected between the upper portions of the lateral members of the first U-shaped frame 62 so as to form a seat. The second U-shaped frame 64 includes a central member and two lateral members extending from the central member. The central member of the second U-shaped frame 64 is put on the ground. Each lateral member of the first U-shaped frame 62 includes a lower portion and an upper portion. The upper portion of each lateral member of the second U-shaped frame 64 is used as an armrest 68. The third U-shaped frame 66 includes a central member and two lateral members extending from the central member. A plurality of parallel straps is connected between the lateral members of the third U-shaped frame 66 so as to form a backrest. A connection device is arranged between each armrest 68 and corresponding one of the

lateral members of the third U-shaped frame 66 in order to provide various positions of the backrest relative to the seat.

Referring to Figure 7, the connection device includes a pin 72 extending from one of the lateral members of the third U-shaped frame 66. The pin 72 includes an enlarged head 74. The connection device further includes a track 74 attached to one of the lateral members of the second U-shaped frame 64. The track 74 defines a hole 76, a slot 78 extending from the hole 76 and a plurality of detents 80 located along and communicated with the slot 78. The connection device further includes a slide 82 defining a hole 84 and a slot 86 extending from the hole 84. The connection device further includes a plug 88. In assembly, the slide 82 is attached to the track 74 in a sliding manner. The hole 84 is aligned with the hole 76 before the enlarged head 72 is inserted through them so that the pin 70 is inserted in them. The pin 70 is moved into the slot 78, and the slide 82 is moved along the track 74. The plug 88 is fit in the hole 76 so as to keep the enlarged head 72 from the hole 76. Thus, the connection device is kept assembled. The number of the positions of the backrest relative to the seat is determined based on the number of the dents 80.

However, the plug 88 is often dropped and lost. Without the plug 88, the connection device cannot be kept assembled, and the conventional beach chair 60 cannot be kept assembled, too. The number of the positions of the backrest relative to the seat is limited. In addition, this conventional beach chair 60 fails to provide any support to a user's legs

that is important particularly when he or she lies down in the conventional beach chair 60.

The present invention is therefore intended to obviate or at least alleviate the problems encountered in prior art.

Summary of Invention

It is an objective of the present invention to provide a reliable beach chair.

It is another objective of the present invention to provide a beach chair that can be moved to any desired position within a range.

It is another objective of the present invention to provide a beach chair that can support a user's legs.

According to the present invention, a beach chair includes two frames, a support located between and pivotally connected with the frames for supporting a user and a hydraulic cylinder connected between one of the frames and the support. The hydraulic cylinder includes a lever movable from a first position to a second position. As the lever is in the first position, the hydraulic cylinder cannot be extended and shrunk. As the lever is in the second position, the hydraulic cylinder can be extended and shrunk.

Other objects, advantages and novel features of the invention will become more apparent from the following detailed description in conjunction

with the attached drawings.

Brief Description of Drawings

The present invention will be described via detailed illustration of the preferred embodiment referring to the drawings.

Figure 1 is a perspective view of a beach chair according to the preferred embodiment of the present invention.

Figure 2 is a left side view of the beach chair shown in Figure 1.

Figure 3 is a top view of the beach chair shown in Figure 1.

Figure 4 is similar to Figure 3 but shows a lever of a hydraulic cylinder of the beach chair in a different position.

Figure 5 is similar to Figure 2 but shows the beach chair in a different position.

Figure 6 is a perspective view of a conventional beach chair.

Figure 7 is an exploded view of the conventional beach chair of Figure 6.

Detailed Description of Preferred Embodiment

Referring to Figure 1, according to the preferred embodiment of the present invention, a beach chair 10 includes two lateral frames 24 each

including a rear leg 20, a front leg 20, an armrest 26 connected with the front and rear legs 20, an axle 21 formed on the armrest 26, and a rod 28 connected between the front and rear legs 20. A rod 22 is connected between the rear legs 20 of the frames 24.

The beach chair 10 further includes a support 30. The support 30 includes a curved plate 37 and two curved rods 38 attached to two lateral edges of the curved plate 37. The curved plate 37 includes an upper portion 31 formed as a backrest, a middle portion32 formed as a seat and a lower portion 33 formed as a stool. Each curved rod 38 is pivotally connected with corresponding one of the armrests 26 by means of a bracket. Each bracket includes two rods 34 each including an end attached to corresponding one of the curved rods 38 and an opposite end attached to a collar 36. A reinforcement plate 35 is connected between the rods 34 of each bracket. Each collar 36 is rotationally put on corresponding one of the axles 21 so as to pivotally install the support 30 on the frames 24.

A hydraulic cylinder 40 is connected between one of the front legs 20 and corresponding one of the rear legs 20. The hydraulic cylinder 40 includes a lever 41 for the control thereof. The lever 41 is normally in a first position shown in Figure 3. In the first position of the lever 41, the hydraulic cylinder 40 cannot be extended and shrunk. The lever 41 can be pivoted to a second position shown in Figure 4. In the second position of the lever 41, the hydraulic cylinder 40 can be extended and shrunk.

Referring to Figure 2, the hydraulic cylinder 40 is extended. The backrest 31 is in a high position while the stool 33 is in a low position.

The lever 41 can be pivoted from the first position shown in Figure 3 to the second position shown in Figure 4. The hydraulic cylinder 40 can be shrunk so as to allow the movement of the backrest 30 and the stool 40 from the position shown in Figure 2 to a position shown in Figure 5.

Referring to Figure 5, the hydraulic cylinder 40 is shrunk. Because of the hydraulic cylinder 40, the backrest 31 is in a low position while the stool 33 is in a high position.

The backrest 31 and the stool 33 can be moved to any desired position between the positions shown in Figures 2 and 5 due to the use of the hydraulic cylinder 40.

The present invention has been described via detailed illustration of the preferred embodiment. Those skilled in the art can derive variations from the preferred embodiment without departing from the scope of the present invention. Therefore, the preferred embodiment shall not limit the scope of the present invention defined in the claims.